

Title (en)

APPARATUS FOR EVALUATING DENSITY AND EVENNESS OF PRINTED PATTERNS

Publication

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Application

EP 85302582 A 19850412

Priority

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- JP 12782784 A 19840621
- JP 27043784 A 19841221

Abstract (en)

[origin: EP0159880A2] Apparatus for evaluating density and evenness of a pattern printed on an article comprises means (4, 5) for calculating the density distribution of a plurality of image data in each segment of the pattern, means (6) for normalising the density distribution with an area of effective image data in each segment, and means (8) for quantifying the density and evenness of the patterns. The density distribution calculating means includes a differential circuit (44) for differentiating the image data in each segment. A first discriminating-converting circuit (45) receives and discriminates the differential values with a predetermined value, and converts the values into a specific value in response to the discrimination. A second discriminating-converting circuit (42) performs the same process for the image data in each segment. A synthesizer circuit (62) finds an effective domain of the printed patterns by synthesizing the output signals from the first and second discriminating-converting circuits. A calculating circuit (5) calculates a density histogram of the image data with reference to the effective domain. The normalising means includes a circuit (6) for deciding which are effective segments, on the basis of the found effective domain. An area calculating circuit calculates the total effective area A of the density histogram of the effective segments and partial effective areas Bi of the density histogram. The quantifying means includes a circuit (81) for calculating ratios $C_i = B_i/A$ representing the density evenness in each effective segment.

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G06F 15/70

IPC 8 full level

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G06T 7/0002 (2013.01 - EP US); **G06T 7/41** (2016.12 - EP US); **G06V 10/42** (2022.01 - KR); **G06T 2207/30168** (2013.01 - EP US)

Citation (search report)

- [A] EP 0115546 A1 19840815 - IBM DEUTSCHLAND [DE], et al
- [A] GB 1049227 A 19661123 - IBM
- [A] PATTERN RECOGNITION, vol. 9, no. 1, January 1977, Pergamon Press, GB; M. BOHNER et al.: "An automatic measurement device for the evaluation of the print quality of printed characters"

Cited by

US5384859A; EP0540833A3; US5317390A; EP0527285A3

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